

Communities Saving Wisconsin Birds: North and South

Robert H. Horwich

*Community Conservation
50542 One Quiet Lane
Gays Mills, WI 54631
608. 735. 4717
ccc@mwt.net*

INTRODUCTION

Despite recent critiques of community conservation projects, such projects managed by community groups are the future of conservation. Critics are confusing large Integrated Conservation and Development Projects (ICDP) with our smaller scale successful community conservation projects. Part of the controversy depends on scale of size and budget of projects. Other successful characteristics that separate the smaller successful projects are that they are holistic, they fully integrate economics without stressing them, and they see rural people as the solution, hence as potential conservationists. Additionally, these projects create models for regional influence and focus on empowering community groups to function equally with governments or non-government organizations (NGOs) as co-managers of protected areas. While the projects I discuss often have a focal animal, in reality, they look at habitat and full ecosystems as much as possible. Thus, although birds may not be the overt

focus, they are a major part of the vertebrate populations to be conserved. Well over 60 Wisconsin bird species, especially warblers, are being protected by communities in Belize and Wisconsin (see Tables 1 and 2).

CATALYZING COMMUNITY CONSERVATION PROJECTS

Small community conservation projects should strive for financial, cultural, and legal sustainability and a holistic approach. Some kind of physical infrastructure will give continuity and thus strengthen the sustainability. The level of assistance that can be provided to encourage community conservation projects can be at the community level, or can work through local or regional NGOs who in turn work with communities. With larger projects one can organize regional groups or Community-based Organizations (CBOs) into smaller units to create regional influence.

There are ten stages that we (Community Conservation) have used to catalyze community conservation projects

Table 1. Forest Birds Migrating between Wisconsin and Central America

* *Species that migrate from any location in Wisconsin only to CA (Greenberg and Reaser 1995; Temple and Cary 1987)*

** *Species that migrate from southern Wisconsin to winter in Belize [may winter elsewhere as well] (Greenberg and Reaser 1995; Temple and Cary 1987)*

no* *Species from Wisconsin that pass through Belize to winter elsewhere*

CBS indicates species found on the Community Baboon Sanctuary in Belize (Bider 1997)

*Yellow-billed Cuckoo (*Coccyzus americanus*) (CBS)

*Yellow-bellied Flycatcher (*Empidonax flaviventris*) (CBS)

*Acadian Flycatcher (*Empidonax virens*) (CBS)

*Willow Flycatcher (*Empidonax traillii*)

*Tennessee Warbler (*Vermivora peregrina*) (CBS)

*Nashville Warbler (*Vermivora ruficapilla*)

*Northern Parula (*Parula americana*) (CBS)

*Chestnut-sided Warbler (*Dendroica pensylvanica*) (CBS)

*Magnolia Warbler (*Dendroica magnolia*) (CBS)

*Black-throated Blue Warbler (*Dendroica caerulescens*)

*Black-throated Green Warbler (*Dendroica virens*) (CBS)

*Palm Warbler (*Dendroica palmarum*)

*Bay-breasted Warbler (*Dendroica castanea*) (CBS)

*Northern Waterthrush (*Seiurus noveboracensis*) (CBS)

* Mourning Warbler (*Oporornis philadelphia*) (CBS)

**Ruby-throated Hummingbird (*Archilochus colubris*)

**Least Flycatcher (*Empidonax minimus*) (CBS)

**Great-crested Flycatcher (*Myiarchus crinitus*)

**White-eyed Vireo (*Vireo griseus*) (CBS)

**Yellow-throated Vireo (*Vireo flavifrons*) (CBS)

**Wood Thrush (*Hylocichla mustelinas*) (CBS)

**Gray Catbird (*Dumetella carolinensis*) (CBS)

** Blue-gray Gnatcatcher (*Poliophtila caerulea*) (CBS)

**Tree Swallow (*Tachycineta bicolor*)

**Blue-winged Warbler (*Vermivora pinus*) (CBS)

**Yellow Warbler (*Dendroica petechia aestiva*) (CBS)

**Golden-winged Warbler (*Vermivora chrysoptera*) (CBS)

**Black-and white Warbler (*Mniotilta varia*) (CBS)

**American Redstart (*Setophaga ruticilla*) (CBS)

**Prothonotary Warbler (*Protonotaria citrea*)

** Worm-eating Warbler (*Helminthos vermivorus*) (CBS)

**Ovenbird (*Seiurus aurocapilla*) (CBS)

**Louisiana Waterthrush (*Seiurus motacilla*)

**Kentucky warbler (*Oporornis formosus*) (CBS)

**Common Yellowthroat (*Geothlypis trichas*) (CBS)

**Yellow-breasted Chat (*Icteria virens*) (CBS)

**Rose-breasted Grosbeak (*Pheucticus ludovicianus*)

**Indigo Bunting (*Passerina cyanea*) (CBS)

**Baltimore Oriole (*Icterus galbula*) (CBS)

**Orchard Oriole (*Icterus spurius*) (CBS)

Purple Martin (*Progne subis*)

Veery (*Catharus fuscescens*) (CBS)

Gray-cheeked Thrush (*Catharus minimus*) (CBS)

Swainson's Thrush (*Catharus ustulatus*) (CBS)

Orange-crowned Warbler (*Vermivora celata*) (CBS)

Hooded Warbler (*Wilsonia citrina*) (CBS)

Canada Warbler (*Wilsonia canadensis*) (CBS)

Summer Tanager (*Piranga rubra*) (CBS)

Scarlet Tanager (*Piranga olivacea*) (CBS)

Table 2. Migratory Birds of Concern at BAAP (Aldo Leopold Chapter, Society for Conservation Biology 1998)

Grassland Species

Upland Sandpiper (SC)—SA
 Bobolink (SC)—SA
 Eastern Meadowlark (SC)—NA
 Western Meadowlark (SC)—NA
 Grasshopper Sparrow (SC)—NA
 Dickcissel (SC)—SA
 Sedge Wren (W)—US

Others

Western Kingbird ((SC)—Mex
 Orchard Oriole (SC)—CA
 Henslow's Sparrow (T)—NA

Shrub/Savanna Species

Field Sparrow (SC)—US
 Vesper Sparrow (SC)—US
 Brown Thrasher (W)—US
 Eastern Bluebird (W)—US
 Eastern Towhee (W)—NA
 Clay-colored Sparrow (W)—Mex

that may follow a gross order, though somewhat integrated chronologically. Phase 1 is identifying potential projects and obtaining some seed funding for them. Identifying a local contact or other introduction into the community is important as is identifying the conservation focus (species or ecosystem). After an initial site visit, a proposal can be created to influence the community or other levels of government and to help in pursuing seed funding. The on-site visit also allows developing contracts with local participants.

Phase 2 focuses on initiating the process of developing an organization that in the future will take over the project to focus on community conservation and development. During this phase, some priorities are set and either a volunteer or paid coordinator becomes a focal staff for the project. Initially, this may be a foreign volunteer but will eventually be a local person. Phase 3 means locating resources to help; finding staff and volunteers for this local group; and beginning preliminary training of them.

Phase 4 involves research and information gathering on community

needs, sociology or anthropology of the community and area, biology of the area to be conserved, and the development of working maps of the area. Phase 5 is developing a plan for education, targeting the general public, the local community, and the group board or committee and extended organization. Education or conservation awareness should be broad-based and may include newsletters, posters, website, videos, presentations, public meetings, pamphlets, and personal word of mouth. Phase 6 is helping the community or community group to develop a management plan and operation plan (long and short term), develop infrastructure (Phase 7), implement the plans (Phase 8), and formalize the components of what has been occurring (Phase 9). Finally, in Phase 10 of the process, the catalyzing organization terminates its major role that is assumed by the local community group. The catalyzing group/persons should follow the project's progress and be ready to give support when needed and asked for.

CENTRAL AMERICA AND WISCONSIN BIRDS

While I have worked in a number of Central American countries, the focus of this paper is on a few Belize projects and lessons learned from them. The Community Baboon Sanctuary is the main example. (Reference is to the Black Howler Monkey, affectionately called "Baboon" by the locals.) Other projects such as Gales Point, Manatee and Five Blues National Park have been written about elsewhere (Horwich and Lyon 1998, 1999; McLain 1997). While not specifically focused on birds in either Belize or Wisconsin, the projects protect many Wisconsin birds and encourage studies of them (Bider 1997; Robbins et al. 1992). Species such as Gray Catbird (*Dumetella carolinensis*), Wood Thrush (*Hylocichla mustelina*), Baltimore Oriole, (*Icterus galbula*), Ruby-throated Hummingbird (*Archilochus colubris*), Rose-breasted Grosbeak (*Pheucticus ludovicianus*), Indigo Bunting (*Passerina cyanea*), Black-and-white Warbler (*Mniotilta varia*), American Redstart (*Setophaga ruticilla*), Common Yellowthroat (*Geothlypis trichas*) and the Ovenbird (*Seiurus aurocapilla*) are species found in the southwestern Wisconsin forests that depend on Central America for their southern wintering range (Greenburg and Reaser 1995).

BELIZE COMMUNITY CONSERVATION PROJECTS

Community Baboon Sanctuary—

The Community Baboon Sanctuary (CBS) was initiated as a community sanctuary in 1985 without government involvement. The main goal of the

CBS project is local protection of the howler monkey (*Alouatta pigra*) and its habitat through encouraging a stewardship ethic in landowners. The sanctuary lands are privately owned by subsistence farmers who have signed a voluntary pledge to abide by a howler conservation management plan for their lands. Details on the history and scope of the project can be found in Horwich (1990) and Horwich and Lyon (1988; 1990; 1995; 1998; 1999). In addition to the local protection of the howler, the CBS project has spread interest in howler protection country-wide. The sanctuary is managed by a board of local citizens and generates monies through ecotourism (Horwich et al. 1993b; Bruner 2002).

As a first project, it set the standard, focusing on five facets: conservation, education, research, community development, and economic development. It was based on voluntary pledges of over 150 landowners who agreed to abide by simple management plans to leave aerial paths in large milpa (slash and burn) clearings, and to leave forest along property boundaries and along the river.

The education program evolved to include a simple rural museum which was Belize's first museum, a sanctuary book that was given to schools and sold to tourists (Horwich and Lyon 1990), an education program which reaches about 3000 schoolchildren yearly who visit the CBS, foreign high school and college classes hosted by CBS, and a recently built education center equipped with computers and a small lecture hall.

The research program included population behavior and ecology of the black howlers (Lyon and Horwich 1996; Silver et al. 1999; Horwich et al.

2001), studies of the sanctuary (Hartup 1989; Bruner 1993; Hartup 1994; Bruner Lash 2003), studies of community hunting practices, and studies of the endangered Central American river turtle (Polisar 1995; Polisar and Horwich 1994). Bird studies in the CBS have specifically shown which Wisconsin species depend on Belize wintering grounds (Table 1) (Bider 1997; Robbins et al. 1992). The CBS donated howlers for a reintroduction into the Cockscomb Basin of Belize (Horwich et al. 1993a; Koontz et al. 1994) and also contributed howlers for another small release in the Cayo District of Belize.

Economic development has focused on ecotourism with guiding and crafts bringing income to local residents. Sustainability and economic benefits come from the 4–6000 yearly visitors (Hartup 1989; Bruner 1993). A sanctuary owned restaurant and a portion of guiding fees goes to support the sanctuary staff. In 1998 a Woman's Conservation Group took over management and deals directly with government, NGOs, and outside agencies.

The CBS's strongest success has been its influence on rural communities countrywide, due to major international publicity (ABC/Kane 1991; National Audubon Society 1991; Project Lighthawk 1992; Lipske 1992; Koontz 1993; Wildlife 1994). National publicity has stimulated, both directly and indirectly, dozens of community-based conservation and ecotourism programs (Bevis and Bevis 1991; Ministry of Tourism and Environment 1994, 1995; Ketchi Council of Belize and Inuit Circumpolar Conference 1997).

Sarstoon-Temash National Park—In early 1989 I visited Punta Gorda and

the villages of Crique Sarco and Baranco to explain the concept of a Biosphere Reserve and ask villagers to sign petitions inviting me into the area to begin preparation for a Biosphere Reserve encompassing lands between the Temash and Sarstoon rivers on Belize's southern border. Although area residents were interested, the government politicians were not receptive to a proposal that I submitted to them. Then in 1994 the government created the Sarstoon-Temash National Park without consulting community members of the surrounding six villages who knew little about it or its boundaries.

In 1997 with the help of Judy Lumb, CC re-catalyzed the idea. Volunteers traveled to four villages to explain about the existing National Park, and encouraged attendance at the proposed meeting on community co-management of the park. The meeting, held in Barranco, was attended by the Belize Department of Forestry, other government agencies, foreign NGOs, and granting agencies, as well as members of the Mayan communities of Crique Sarco, Sunday Wood, Conejo, Midway, and Barranco, a Garifuna community. We published the transcripts of the meeting in 1998 (Anon. 1998). The meeting resulted in the creation of a steering committee of the five villages.

Later, meetings of community representatives resulted in the formation of a co-management committee for the National Park and led to obtaining small grants to form SATIIM (Sarstoon Temash Institute of Indigenous Management). SATIIM in turn obtained a \$800,000 Global Environmental Fund grant to create a management plan, collect biological and tradi-

tional ecological knowledge data, and to get training for co-management (Caddy et al. 2000). SATHIM carried out an education campaign to overcome initial resistance to the National Park. Although SATHIM is an indigenous organization and claims to be community-based, it receives criticism from its village constituents who claim that the Punta Gorda based SATHIM is not representative of villagers (De Vries et al. 2003).

WISCONSIN COMMUNITY CONSERVATION PROJECTS

The Wisconsin community projects have focused on both forest and prairie habitats which are protecting at least 138 species in the Kickapoo Valley (Institute for Environmental Studies 1974; Table 1) and a number of significant grassland species in the Blue Mounds area, BAAP lands, and ornate box turtle areas (Table 2).

Ferry Bluff Eagle Council—The Ferry Bluff Eagle Council (FBEC) evolved from a working chapter of the Eagle Foundation of Cassville that went bankrupt in 1988. They incorporated in 1988 as the Ferry Bluff Eagle Sanctuary that became Ferry Bluff Eagle Council in 1990. In 1988 FBEC, had hoped to purchase Ferry Bluff, an important bald eagle roosting site, but it was instead deeded to the DNR. Erickson, President of the then Ferry Bluff Eagle Sanctuary, was familiar with the CBS and contacted me to initiate a program to form the Sauk-Prairie Eagle Sanctuary to protect eagle roosts. Sixty landowners were signed into the program with simple management plans but the program was later abandoned. FBEC developed

a tourism viewing overlook at Prairie du Sac and initiated the first eagle days in 1990, jointly sponsored by the DNR, Sauk-Prairie Chamber of Commerce, and some local businesses. Ecotourism research indicated that over 10,000 tourists were spending over \$618,000 in a ten week period in the Sauk-Prairie area (Van Koningsveld et al. 1994) which is now estimated to be over \$750,000. Besides serving an education purpose, the FBEC engages in winter eagle monitoring and studies of radio-tracked rehabilitated eagles. They also purchased a conservation easement for lands encompassing one eagle roost and brokered another purchase of adjacent lands by the state government.

Ornate Box Turtle Conservation Project—The ornate box turtle (*Terrepenne ornata ornata*) ranges from its northern-most area in southern Wisconsin southwest into Texas and northern Mexico. It inhabits a dry-mesic prairie habitat on sandy soils like the Spring Green Prairie. Since little habitat is left, it inhabits isolated pockets of remnant prairies.

When Bill Moore, a freelance writer and turtle enthusiast, approached CC in 1991, we worked with him to compile an update of areas of occurrence for the species before preparing a protection plan for them. Moore reviewed old records and began surveying the likely sites. That year he discovered a large turtle population in Rock County. Soil maps were also used to locate potential sandy prairies. Because most of the turtle habitat was on private lands, he contacted 156 landowners in 7 counties with the help of Bob Hay of the Bureau of Endangered Species. In 1992 the project was taken over by the DNR and in 1993 they began a public relations

/management project surrounding the one viable population in the state in Rock County. They worked with a group of four landowners on 90 acres to protect the turtles and improve their habitat. Three other landowners with an additional 99 acres were also contacted. In 1996 they began implementing a management plan with some landowners. Since this is the only viable population, they began translocating relict individuals to a common site to build another viable population. By 1997 they had begun a long-term relocation project and had translocated 45 turtles to the protected site and began head-starting hatchlings to be released at an older age into this population. Research using telemetry was done and turtles are now breeding in this new site.

Kickapoo Valley Reserve—In the 1960s, 144 Wisconsin farm families were displaced from their lands, covering 3468 ha, for the creation of a flood control dam by the U.S. Army Corps of Engineers, who acquired the land in 1963 (Rich, 2001). Pressure from outside environmental groups stopped the dam initiative and the dam was never built. This resulted in over 20 years of social conflict and economic stagnation while local citizens expressed their outrage at the removal of the farm families without the promised economic benefits (Van Wie 2000).

In 1991, while canoeing the Kickapoo River, Governor Tommy Thompson publicly announced that the Kickapoo Dam issue was dead. In response Community Conservation with local Kickapoo Valley residents wrote a proposal in 1992 proposing the lands as a protected area. I presented the proposal to the Kickapoo Valley Association and was requested to make a pres-

entation to a committee working with UW extension agent Alan Anderson who had recently been appointed by Governor Thompson to research and stimulate economic activities in the Kickapoo Valley. I later worked with the committee who used the proposal to encourage the community and politicians to create the Kickapoo Valley Reserve (KVR). In 1993, government lawyers, with the help of local politicians and community members, created legislation to turn the lands over to the Wisconsin Department of Administration and create a predominantly local Kickapoo Valley Reserve Board to manage the lands. The legislation that passed in 1996 in both houses, called for up to 485 ha to be given to the Ho-Chunk Nation under the Department of the Interior to be protected for cultural reasons. Since its creation, there have been at least five evaluations of the Reserve (Burger, 1994; Conzemius and Lyon 1997; Davidson 1994; McLain 1997; Van Wie 2000).

McLain (1997) noted that the KVR's success was linked to having a coordinator in place during its formation, strong legal and financial support from the State, and research linkages to the University of Wisconsin. In addition to the state's yearly budget of approximately \$170,000, the Reserve has acquired state grants and some user fees are also collected. The completion of a new education center in 2004 will provide future economic benefits from increased tourism. Research on the Reserve included studies dating back to the original dam proposal in the 1970s and later research carried out by the University of Wisconsin with maps generated by the Ho-Chunk Nation.

A community opinion survey

showed lack of support for the management of the Reserve by local communities (Conzemius and Lyon 1997). While there has been community participation at public Reserve meetings, Reserve committee meetings, and Reserve events, there has been some discouraging of selected individuals to participate. A more recent survey of adjacent landowners showed an even split of negative responses by older residents and more positive responses to the Reserve by newer residents, many who were not influenced directly by the history of the Reserve (Van Wie 2000). The Kickapoo Reserve Managing Board consists of four local members, two other valley residents, three Governor appointed experts, and two Ho-Chunk members; however, all are Governor appointed and all advisors are from the state making the Board political with some disregard of community concerns. The Reserve functions as a co-management system between the state and the Ho-Chunk Nation (McLain 1997) with a locally dominated Managing Board.

Valley Stewardship Network—The idea of a Kickapoo watershed stewardship group began when Community Conservation (CC) wrote a proposal with the West Fork Sport Club in 1994 to create a buffer area for the newly created Kickapoo Valley Reserve. This proposal led to the creation of a consortium of schools for water monitoring. In 1996 CC hired a watershed coordinator to run the program. Trout Unlimited, influenced by the original CC proposal, began an extensive two-year initiative to work with government and NGOs to strengthen the river protection. CC initiated a summer institute in 1997 to train teachers in water quality monitoring and a

newsletter was begun. The school connection eventually led to a sister watershed program between Kickapoo Valley Schools and schools adjacent to the Manatlan Biosphere Reserve in Mexico. A grant to initiate GIS mapping in 1998 in the Valley schools complemented the program. The water quality monitoring program eventually involved citizen monitors. In 1999 Valley Stewardship Network was born out of the Watershed Consortium. They became an independent non-profit organization in 2002 and have since focused on helping local townships with land use planning and in compiling data on biodiversity in the Kickapoo Valley.

Blue Mounds Area Project—This project was initiated in May, 1995 by a proposal by Brian Pruka who was interested in protecting oak savannas that he had been studying in Dane and Iowa Counties in southwest Wisconsin (Pruka, 1995). The goal was to help private landowners enhance the biodiversity of non-economic species on their private lands. Beginning in 1996, support from the Wisconsin Environmental Education Board, the Madison Community Foundation, Laird Norton Foundation, the Prairie Enthusiasts, and the Wisconsin Department of Natural Resources maintained the project.

With Pruka as the initial Project Director and part time Ecological Extension Agent under an Advisory Board project membership increased to 80 members and surveys of 43 private lands were made. The program began a weekly column for the Mount Horeb Mail and carried out a public education program of workshops, presentations to area organizations, booth pre-

sentations for conferences, and radio interviews.

Although progressing well, the program still only allowed for a part-time extension agent. Frustrations with sporadic funding led PruKa to resign after mobilizing an additional group of landowners to become active in working with the project. The situation left two groups of board members with varying views on project direction in 1997. The next few months were spent integrating the old advisor board with the new volunteers to create a stronger 9 member advisory board (4 officers) with a greater number of local landowners as well as professional biologists and myself as advisor. The project still functioned under the umbrella of Community Conservation, with a temporary board.

In early 1998, the Blue Mounds Project hired Bob Wernerehl as the Ecological Extension Agent and the Advisory Board played a stronger role in directing the project. Varied education programs were attended by over 150 people and a quarterly newsletter, begun in 1995, is now circulated to over 600 area people. Land visits increased to a total of over 100 landowners and over 4000 acres. During 1999 membership doubled to about 180 members, and the newsletter was then mainly circulated to members with annual reports and other materials.

The Blue Mounds Project is now operating in a 18-township rural area of south-central Wisconsin, mainly Dane and Iowa Counties with a few sites in four adjacent counties. It has provided ecological extension services to over 100 landowners in the area. The project manager, serving as an Ecological Extension agent, does species inventories and works to encourage biodiver-

sity and ecologically sensitive land use by private landowners. He assists landowners by providing information, seeking economic benefits, and coordinating community efforts to protect their natural resources. He identifies conservation issues by identifying uncommon animals and plants on the lands, helps to implement land management techniques, and assists landowners in seeking government subsidies, management services, and harvesting services. The lands managed include over 13,000 acres in southwest Wisconsin that are managed for prairies, woodlands, wetlands, and oak savannas. These acres include 14 plant and 3 bird species (Bell's Vireo (*Vireo bellii*), Henslow's Sparrow (*Ammodramus henslowii*), and Grasshopper Sparrow (*Ammodramus savannarum*) that are threatened or endangered. The managerial advice also includes methods of controlling invasive plant species.

Each landowner who requests a site visit is visited on their land for 3–6 hours in which the Ecology Extension Agent walks their land with them, noting the occurrence of endangered and threatened species and species of note. The landowners are given information on methods of management for these species or any other pertinent management ideas for the lands they own. After each visit the ecologist leaves them with a sketch of their lands with a rough vegetation map indicating various ecosystems on the property. Each site map is accompanied by written comments indicating a description of the ecosystems and how they relate to each other, management practices that have occurred in the past and the results of these practices, various positive features of the land,

dominant and significant species, native and invasive species, landowner's long term goals, and management recommendations. This is often accompanied by aerial photos of the lands and a letter with some of the highlights of the visit.

Environmental education is a strong element of the project, including species inventories, newspaper columns, and public workshops on land use topics. The project has had partial sustainability through donations and membership dues that have increased to about 200 members. This covers a quarter of the project's yearly budget of \$20,000 for a half-time salary for the ecologist, newsletter production, and administration. Additional funds have been through grants and some consultancy fees.

Badger Army Ammunition Plant Lands—CC's involvement in BAAP lands was as a project catalyst in the early phases of the project until others took a leadership role. In late 1996, a CC board member faxed us a letter by Laura Olah of Citizens for Safe Water Around Badger (CSWAB) asking CC to sign a letter to Senators Feingold and Kohl and State Representative Klug against a strategic plan to reindustrialize BAAP for chemical based industries. Olah suggested instead that the community must come together to create a vision sensitive to community needs and the natural resources of the area.

CC began to work with CSWAB in July 1997 in an effort to develop a vision for the BAAP lands. CSWAB hosted a series of community meetings in which I spoke on community conservation and its implications for BAAP lands. By mid-November of that year the army announced the closure of Badger. CSWAB quickly followed with a

community meeting about the situation and CC drew up a proposed strategy. By mid-December a CC proposal draft was complete but there was no agreement by area residents to sign on to it, and CC preferred to have resident participants. However, when representative Klug set up a month-long task force during March 1998, CC completed the proposal which was embraced by the newly formed Community Conservation Coalition for the Sauk Prairie (CCCSP) and presented to task force members. Despite an article about the proposal in the local newspaper and an invitation to task force members to hear about the vision for BAAP, timing was late and it was not considered seriously by them. However, nothing was resolved by the task force.

By the summer of 1998, Sauk County and the Ho-Chunk Nation became involved in discussions. In the summer of 1999, I participated in a seminar on the Kickapoo Reserve as a model for the BAAP lands. Community Conservation used the Kickapoo Valley Reserve as a model to help local people in the Sauk-Prairie region to create a prairie reserve from the BAAP lands.

In 2000 the General Services Administration (GSA), whose responsibility is to redistribute government lands became involved. In May 1999, Representative Baldwin and a congressional delegation obtained \$100,000 for Sauk County to facilitate committee meetings to build community consensus for the reuse of BAAP lands. This committee of over 20 varied members reviewed a number of proposals at public meetings including one by CCCSP modified from CC's original proposal. The badger reuse committee came up with a final report in March 2001. Due to a major educational and research cam-

paign by CCSP, the final report supported much of the conservation related ideas of the CCCSP proposal. Research on grassland birds indicated the area as significant for grassland birds (Table 2). The BAAP situation is still unsettled but the general community under a Reuse Committee has created a plan for a conservation area to be co-managed by the State, the Ho-Chunk, and the U.S. Department of Agriculture.

DISCUSSION—LESSONS LEARNED

Community Conservation has catalyzed or worked with over 20 young community-based projects in nine countries, encompassing 16 cultures and over 160 villages. Over 75% of the projects have formed conservation management groups, nine of which are fully empowered and managing projects. All are ongoing after 8-20 years. Sixteen involve fully protected areas for a total of 1.2 million acres. The lessons learned have been reinforced over and over and have been exhibited in the Belize and Wisconsin projects described.

Project Initiation Lessons—In initiating and carrying out a project, individuals and volunteers are important and can make a major difference. Having a project support coordinator is a key component; the coordinator can initially be a foreigner or volunteer but must eventually become a local person, preferably in a paid position. Proposals have great power to involve community members and government agencies and can be utilized for obtaining funding. Because all projects are individual, catalyzing one depends on flexibility, seeking creative solu-

tions, and working within the project and community resources and limitations. Finally, it is very important to monitor the project and catalyze and re-catalyze it when necessary, as led to success in the Sarstoon-Temash National Park.

Community Lessons—The main lesson from the CBS is that communities can take a leading managerial role and we must work with them on ethical and practical grounds. Their knowledge of the area and traditional indigenous knowledge can be used and integrated with formal academic knowledge. Using community members in data gathering and in making maps is useful and serves to integrate community members into the project. Raising community desire for the project and having a persistence group of community members can maintain project continuity. Having strong, reliable community leaders can be a major help but people can also be obstructionist and there is always a complexity of community problems and history that are hard to separate from the project. Thus community jealousies, that are almost always present, hamper projects. Lastly, as in the CBS and the Kickapoo Reserve, community models can have a major impact in catalyzing regional effects as they did throughout rural Belize and southern Wisconsin.

Establishing an empowered community group that can interact directly with government and other outside agencies and knows how to find and use available resources is the key to a long-term successful community conservation project. Training is a major component for creating strong community participants. A broad based community initiative is necessary from

the beginning with a striving for equity in the community that is extremely difficult to attain. Finally, an advisory board as used in the CBS can integrate educated and talented outside individuals with ties to the community.

Continuity and Sustainability Lessons—Discontinuity of resources and programs discourages community members; but projects will revive as long as the idea remains. Techniques are often replicable in various projects. The importance of models for regional influence cannot be overstated. The course of Belize conservation has been changed due to the CBS model.

Financial Lessons—Some basic level of seed and maintenance money is essential. Additionally, establishing a mechanism for a low level of financial sustainability is of great importance as was done in the CBS from guiding fees. Indeed financial discontinuity discourages the community as happened in the Gales Point, Manatee project. While ecotourism is not a panacea, it does have potential for sustaining a project and incentives for local economic gain as in the CBS and the Ferry Bluff Eagle Council.

Government Lessons—While a strong government is important in establishing a balance for co-management, politics and corruption can hamper a project. Government may also act too slow or reduce community initiative. That is why it is important to establish equality in co-management and maintain community-government communication. A main role for government is in establishing consistent, long-term laws for land use, management, and protection with concern for community and indigenous rights. The conservation of private lands can be strengthened with voluntary legal

restrictions. While keeping the environment free of politics is important, it is also difficult.

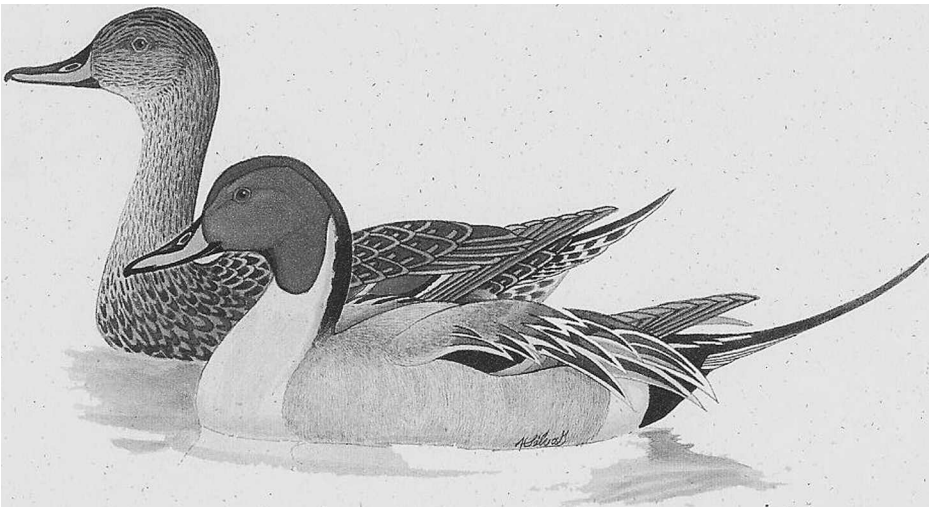
NGO lessons—The main role of an NGO is as intermediary, educator, and trainer between the community and government or other outside agencies. NGOs need to strengthen the community organizations and connect them directly with the resources they need to become managers of the project. Once effective, the NGO moves to the next community. As networkers and collaborators, NGOs must use transparent communication.

LITERATURE CITED

- ABC/Kane. 1991. A Howler Monkey Village (video).
- Aldo Leopold Chapter, Society for Conservation Biology. 1998. Summary information on birds of conservation concern at the badger Army ammunition Plant (BAAP). <http://www.saukprairievision.org> January 2005.
- Anon 1998. Sarstoon-Temash National Park, Transcript of Stakeholders Workshop. Producciones de la Hamaca and Community Conservation Consultants.
- Bevis, J. and M. Bevis. 1991. Slate Creek Preserve. MS.
- Bider, Jeanette C. 1997. Avian use of tropical gallery forest patches in north-central Belize. University of Arkansas. Ph.D. Thesis.
- Bruner Lash, Gail. 2003. Sustaining our spirit: ecotourism on privately-owned rural lands and protected areas. The University of Georgia. Ph.D. Thesis
- Bruner, Gail Y. 1993. Evaluating a model of private-ownership conservation: ecotourism in the Community Baboon Sanctuary in Belize. Georgia Institute of Technology, M.S. Thesis.
- Burger, Stephen C. 1994. Landscape evaluation of management options: The Kickapoo Valley Reserve. University of Wisconsin-Madison, M.S. Thesis.
- Caddy, E., G. Ch'oc, and S. Paul. 2000. The Sarstoon-Temash Institute of Indigenous Management: a grassroots initiative for social equity and sustainable development. MS presented at the IUCN world congress, Amman, Jordan, Oct 10 2000
- Conzemius, Sara E. and Jonathan Lyon. 1997.

- Valley in transition: citizen views of the Kickapoo Reserve. Madison, WI: Edgewood College.
- Davidson, Debra J. 1994. Natural resource management and citizen participation: an examination of the Kickapoo drafting committee, Kickapoo Valley, Wisconsin. University of Wisconsin-Madison, M.S.
- De Vries, G. W., M. F. Haines, S. B. Hufnagel, A. K. Laird, K. D. Rearick and O. E. Salas. 2003. Enhancing Collaboration for Conservation and Development in Southern Belize. M.S. Thesis, University of Michigan (School of Natural Resources and Environment)
- Greenberg, R. and J. Reaser. 1995. Bringing Back the Birds. Stackpole Books, Mechanicsburg, PA
- Hartup, Barry K. 1989. An alternative conservation model for tropical areas: the Community Baboon Sanctuary. M.S. Thesis. University of Wisconsin-Madison
- Hartup, Barry K. 1994. Community conservation in Belize: demography, resource use, and attitudes of participating landowners. *Biological Conservation*, 69: 235–241.
- Horwich, Robert H. 1990. How to develop a community sanctuary—an experimental approach to the conservation of private lands. *Oryx*, 24:95–102.
- Horwich, Robert H. and Jonathan Lyon. 1988. An experimental technique for the conservation of private lands. *Journal of Medical Primatology*, 17: 169–176.
- Horwich, Robert H. and Jonathan Lyon. 1990. A Belizean rainforest—the Community Baboon Sanctuary, Gays Mills WI: Orang-utan Press.
- Horwich, Robert H. and Jonathan Lyon. 1995. Multi-level conservation and education at the Community Baboon Sanctuary, Belize. In *Conserving Wildlife: International Education and Communication Approaches*, ed. S.K. Jacobson, pp. 235–253. New York: Columbia University Press.
- Horwich, Robert H. and Jonathan Lyon. 1998. Community development as a conservation strategy: the Community Baboon Sanctuary and Gales Point Manatee projects compared. In *Timber, Tourists, and Temples: Conservation and Development in the Maya Forests of Belize, Guatemala and Mexico*, eds. R. B. Primack, D. Bray, H. A. Galetti and I Ponciana, pp. 343–64. Washington DC: Island Press.
- Horwich, Robert H. and Jonathan Lyon. 1999. Rural ecotourism as a conservation tool. In *Development of Tourism in Critical Environments*, eds. T. V. Singh and S. Singh, pp. 102–119. New York: Cognizant Communication Corporation.
- Horwich, Robert H., Fred Koontz, Ernesto Saqui, H. Saqui and Kenneth Glander. 1993a. A reintroduction program for the conservation of the black howler monkey in Belize. *Endangered Species Update* 10 (6): 1–6.
- Horwich, Robert H., Dale Murray, Ernesto Saqui, Jonathan Lyon and Dolores Godfrey. 1993b. Ecotourism and community development: a view from Belize. In *Ecotourism: a Guide for Planners and Managers*, eds. K. Lindberg and D.E. Hawkins, pp. 152–168. North Bennington VT: The Ecotourism Society.
- Horwich, Robert H., Robin C. Brockett, Roxie A. James and C.B. Jones. 2001. Population growth in the Belizean howling monkey (*Alouatta pigra*). *Neotropical Primates* 9: 1–7.
- Institute for Environmental studies 1974. Environmental Analysis of the Kickapoo River Impoundment: A Report to the U.S. Army Corps of Engineers. IES Report 28. University of Wisconsin-Madison.
- Ketchi Council of Belize and Inuit Circumpolar Conference. 1997. Co-management workshop summary manuscript.
- Koontz, Fred. 1993. Trading places. *Wildlife Conservation May/June*: 52–59.
- Koontz Fred, Robert Horwich, Kenneth Glander, W. Westrom, C. Koontz, Ernesto Saqui, H. Saqui. 1994. Reintroduction of black howler monkeys (*Alouatta pigra*) into the Cockscomb Basin Wildlife Sanctuary, Belize. In *AZA Annual Conference Proceedings*, Wheeling, West Virginia, American Zoo and Aquarium Association, pp. 104–111.
- Lipske, Michael. 1992. How a monkey saved the jungle. *International Wildlife*, Jan.–Feb: 38–43.
- Lyon, Jonathan and Robert H. Horwich. 1996. Modification of tropical forest patches for wildlife protection and community conservation in Belize. In *Forest Patches in Tropical Landscapes*, eds. J. Schelhas and R. Greenburg, pp. 205–230. Washington, D.C.: Island Press.
- McLain, Linda A. 1997. Community-based conservation plans: local participation for empowerment and environmental protection in Gales Point, Manatee, Belize and the Kickapoo Valley, Wisconsin. M.S. Thesis, University of Texas-Austin.
- Ministry of Tourism and Environment. 1994. Guide to Community-based Ecotourism in Belize. Ministry of Tourism and Environment and The Belize Enterprise for Sustained Technology.
- Ministry of Tourism and Environment. 1995. Community Ecotourism (video).
- National Audubon Society. 1991. The Environmental Tourist: An Ecotourism Revolution (video).
- Polisar, J. 1995. River turtle reproductive demography and exploitation patterns in Be-

- lize: implications for management. *Vida Silvestre Neotropical* 4: 10–19.
- Polisar, J. and R. H. Horwich. 1994. Conservation of the large economically important river turtle *Dermatemys mawii* in Belize. *Conservation Biology* 8:338–342.
- Project Lighthawk. 1992. *Wings Above the Forest* (video).
- Pruka, B. 1995. Proposal for a Community-Based Conservation Coordinator for the Blue Mounds Region of Southern Wisconsin. MS.
- Rich L. 2001. The Kickapoo Story, pp. 30–33, in: CNRA—The First 50 Years.
- Robbins, C.S., B.A. Dowell, D.K. Dawson, J.A. Colon, R. Estrada, A. Sutton, R. Sutton, D. and Weyer. 1992. Comparison of neotropical migrant landbird populations wintering in tropical forest, isolated forest fragments and agricultural habitats. In: *Ecology and Conservation of Neotropical Migrant Landbirds*, J.M. Hagen III and D.W. Johnston (eds). Smithsonian Institution Press, Washington. Pp. 207–220.
- Silver, Scott, L.E.T. Ostro, C.P. Yeager, and Robert H. Horwich. 1999. Feeding ecology of the black howler monkey (*Alouatta pigra*) in northern Belize. *American Journal of Primatology* 45: 263–279.
- Temple, Stanley A. and John R. Cary. 1987. *Wisconsin birds, a seasonal and geographical guide*. University of Wisconsin Press, Madison, WI
- Van Koningsveld, W. C. Norman, and D. W. Marcouiller. 1994. Eagle watcher's along the Wisconsin River Survey results from the winter of 1993–1994.
- Van Wie, Erika. 2000. Managing land adjacent to a protected area: the private land manager's perspective. M.S. Thesis, University of Wisconsin-Madison.
- Wildlife (with Olivia Newton-John). 1994. *Ba-boons-Belize* (video).
- Rob Horwich received a B.A. from Rutgers University (1962) and an MA and PhD from the University of Maryland (1964, 1967). He was a Postdoctoral Field representative in India for the Smithsonian Institution, Research Zoologist at the Brookfield Zoo, Visiting Lecturer at various midwestern Colleges, Resident Ethologist at the International Crane Foundation, and Director of Community Conservation from 1989 to present. He has over 100 professional and popular publications, books and videos on community conservation, ecology, primatology, infant development, and animal behavior. He has reintroduced a new population of howler monkeys in Belize and developed a technique for successful reintroduction of endangered cranes. He has catalyzed over 20 on-going community conservation projects.*



Northern Pintail, pair